UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,789	10/11/2005	Henri Tiedge	1181-13 PCT US	2634

28249 7590 03/08/2010

DILWORTH & BARRESE, LLP
1000 WOODBURY ROAD
SUITE 405
WOODBURY, NY 11797

EXAMINER	
WOLLENBERGER, LOUIS V	
ART UNIT	**PAPER NUMBER**
1635	
MAIL DATE	**DELIVERY MODE**
03/08/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,789	TIEDGE, HENRI	
	Examiner	Art Unit	
	Louis Wollenberger	1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-18* is/are pending in the application.

4a) Of the above claim(s) *5,6 and 8-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,17 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Application/Amendment/Claims

Applicant's response filed 8/10/2009 has been considered. Rejections and/or objections not reiterated from the previous office action mailed 4/8/2009 are hereby withdrawn. The following rejections and/or objections are either newly applied or are reiterated and are the only rejections and/or objections presently applied to the instant application.

Applicant's amendment to the claims filed 8/10/2009 is acknowledged. With entry of the amendment, claims 1-6 and 8-18 are pending.

Claims 5, 6, and 8-16 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claims 1-4, 17, and 18 are under consideration.

Non-Statutory Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 17, and 18 remain rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of Tiedge et al. (U.S. Patent No. 5,670,318) in view of Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), and Wang (U.S. Patent 6,004,755), as evidenced by Cook (U.S. Patent 6,239,265);

and, in the alternative, over claims 1-7 of Tiedge et al. (US Patent 5,670,318) in view of Tiedge (US Patent 5,670,318), as evidenced by Low et al. (U.S. Patent 5,108,921).

U.S. Patent 5,670,318 claims oligonucleotide probes that are identical to instantly claimed antisense sequences SEQ ID NO:3 and 4. See claims 2 and 3. US Patent 5,670,318 further generically claims oligonucleotide probes that hybridize to residues 156-185 of a BC200 RNA target sequence, referred to therein as SEQ ID NO:1, that is identical to instantly recited SEQ ID NO: 1. Accordingly, US Patent 5,670,318 necessarily also claims probes that hybridize to instantly recited SEQ ID NO:2. Thus, the probes claimed in US Patent 5,670,318 are structurally identical to the antisense sequences claimed in the instant application, and, therefore, possess all properties inherent to such sequences, whether recognized at the time or not. U.S. Patent 5,670,318 further claims any of these probes comprising a detectable label. Supporting disclosure in U.S. Patent 5,670,318 shows that one type of detectable label is biotin. See column 5, lines 33-38.

With regard to instant claims 17 and 18, drawn to kits comprising said antisense molecules, it was well known in the prior art to package probes and other diagnostic reagents,

routinely used in the laboratory, in the form of kits to save time and expense. Further, the term "Kit" is not limited by either the claims or the specification to commercially purchased materials but is broadly interpreted to include any compartmentalized arrangement of the probes in enclosed vessels and/or carriers prepared by the artisan according to routine practice.

Absent evidence to the contrary the carriers used to prepare and store probes, which typically consist of buffered dilute aqueous solutions at or near physiological pH, would be "acceptable" within the scope of the claims.

"[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999).

It would further have been obvious at the time of invention to chemically modify any of the probes claimed by Tiedge et al. for any of the reasons in the prior art.

For example, Yang et al. taught that probes may be modified with chemical groups to enhance their performance or to facilitate the characterization of amplification products. Yang et al. taught that, for example, backbone-modified oligonucleotides such as those having methylphosphonate groups which render the oligonucleotides resistant to nucleolytic activity of certain polymerases or to nuclease enzymes may allow the use of such enzymes in an amplification or other reaction (column 16, lines 3-13).

Winger et al. taught that probes can be designed to inhibit nuclease activity. To this end, it is said that methylphosphonates may be incorporated into the labeled probe during chemical synthesis to prevent cleavage at a selected site (column 10, lines 33-36).

In addition, Wang had taught that probe molecules which are capable of sequence specific hybridization with target nucleic acids may be polynucleotides or hybridizing analogues or mimetics thereof, including nucleic acids in which the phosphodiester linkage has been replaced with a methylphosphonate linkage (column 3, lines 5-12).

As evidenced by Cook, column 1, lines 62-65, methylphosphonate oligonucleotides, which lack a charge one the phosphorous group, can penetrate cell membranes to a greater extent and, thus, facilitate cellular uptake.

Therefore, one of ordinary skill in the art would conclude that the antisense molecules defined in the claims at issue are obvious variations of the oligonucleotide probes defined by the claims in the conflicting patent, U.S. Patent 5,670,318.

Additionally, and in the alternative, while Tiedge et al. (US Patent 5,670,318) do not expressly teach linking any of the probes disclosed therein to "moieties that enhance cellular uptake" *per se,* Tiedge et al. do teach that "To facilitate detection, the probe may have a label, such as a radiolabel, chemiluminescent label, fluorescent label or chromogenic label, or an immobilization moiety. Probes modified with biotin or digoxygenin, which can serve as either a detectable label or an immobilization moiety, are particularly useful." See column 5, lines 33-38.

As evidenced by Low et al. (U.S. Patent 5,108,921), biotinylation of a polynucleotide enhances its uptake into cells bearing biotin receptors (see Low et al. at columns 1-9, Example 11, and claims 14-27).

Accordingly, one of would have had reason to biotinylate any of the probes claimed by Tiedge et al. (US Patent 5,670,318) for the reasons given by Tiedge et al. (US Patent 5,670,318). As evidenced by Low et al., biotin enhances the cellular uptake of a polynucleotide when linked

to the polynucleotide. Therefore, Tiedge et al. had, in fact, suggested antisense molecules linked to a moiety that enhances cellular uptake, as defined by the instant claims.

***

Claims 1-4, 17, and 18 remain rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of Tiedge et al. (U.S. Patent No. 5,736,329) in view of Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), and Wang (U.S. Patent 6,004,755), as evidenced by Cook (U.S. Patent 6,239,265);

and, in the alternative over claims 1-7 of Tiedge et al. (U.S. Patent No. 5,736,329) in view of Tiedge (US Patent 5,670,318), as evidenced by Low et al. (U.S. Patent 5,108,921).

U.S. Patent No. 5,736,329 claims methods for testing for the presence of Alzheimer's disease using oligodeoxynucleotide probes that hybridize to BC200 RNA. In certain embodiments, claims 3 and 4, the probes used in the method are identical to instant antisense sequences SEQ ID NO:3 and 4, and would therefore possess all properties inherent to such sequences.

Kits containing these probes are prima facie obvious, since it was normal practice in the art to prepare and store reagents beforehand for convenience and ease of use in later experiments. Carriers used for the preparation of probes would be indistinguishable from those used for the preparation of antisense.

Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), Wang (U.S. Patent 6,004,755), and Cook (U.S. Patent 6,239,265) are relied on for the reasons given above.

Accordingly, it would have been obvious to include one or more methylphosphonate linkages in any of the BC200 probes described by claims 1-7 of Tiedge et al. (U.S. Patent No. 5,736,329) for use in any of the methods claimed by U.S. 5,736,329 for any of the reasons given by Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), Wang (U.S. Patent 6,004,755), as described in the previous ODP rejection, above.

Additionally, and in the alternative, the claims at issue would have been obvious over the claims in U.S. Patent 5,736,329 in view of Tiedge (US Patent 5,670,318), as evidenced by Low et al., each of which is relied on for the reasons stated below in the rejection of the claims under 35 USC 103. As explained below in the rejection under 35 USC 103, Tiedge (US Patent 5,670,318) had taught BC200 antisense probes having sequences identical to those defined by the instant claims. Tiedge had further taught the BC200 probes described therein may be labeled with biotin. See column 5, lines 33-38, in US Patent 5,670,318. As evidenced by Low et al., biotin enhances the cellular uptake of a polynucleotide. See description of Low et al. in the 35 USC 103 below. Accordingly, Tiedge (US Patent 5,670,318) had suggested antisense molecules linked to one or more moieties that enhance cellular uptake within the scope of what is now claimed.

***

Claims 1-4, 17, and 18 remain rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent 7,510,832 in view of Tiedge (US Patent 5,670,318), as evidenced by Low et al. (U.S. Patent 5,108,921);

and, in the alternative over claims 1-3 of U.S. Patent 7,510,832 in view Tiedge (US Patent 5,670,318), Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), and Wang (U.S. Patent 6,004,755), as evidenced by Cook (U.S. Patent 6,239,265).

U.S. Patent 7,510,832 claims methods for testing whether a breast carcinoma has an invasive phenotype comprising combining the test sample with an oligonucleotide probe capable of hybridizing with human BC200 RNA.

Tiedge (US Patent 5,670,318) taught probes capable of hybridizing to a BC200 RNA identical to instant SEQ ID NO:1 for detection and diagnostic purposes. The probes used for such methods would necessarily comprise all properties inherent to such sequences.

Tiedge (US Patent 5,670,318) further taught kits comprising these probes, including the specific probes comprising instant SEQ ID NO: 3 and 4 for detecting BC200 RNA (col. 3 and 5).

Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), Wang (U.S. Patent 6,004,755), and Cook (U.S. Patent 6,239,265) are relied on for the reasons given in an ODP rejection above.

Accordingly, it would have been obvious to include one or more methylphosphonate linkages in any of the BC200 probes described by Tiedge et al. (U.S. Patent No. 5,670,318) for use in any of the methods claimed by U.S. Patent 7,510,832 for any of the reasons given by Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), Wang (U.S. Patent 6,004,755), as described in the previous ODP rejection, above.

Additionally, and in the alternative, the claims at issue would have been obvious over the claims in U.S. Patent 7,510,832 in view of Tiedge (US Patent 5,670,318), as evidenced by Low

et al., each of which is relied on for the reasons stated below in the rejection of the claims under 35 USC 103. Tiedge (US Patent 5,670,318) had taught that "To facilitate detection, the probe may have a label, such as a radiolabel, chemiluminescent label, fluorescent label or chromogenic label, or an immobilization moiety. Probes modified with biotin or digoxygenin, which can serve as either a detectable label or an immobilization moiety, are particularly useful." See column 5, lines 33-38. As evidenced by Low et al., biotin enhances the cellular uptake of a polynucleotide. See description of Low et al. in the 35 USC 103 below.

Therefore, it would have been obvious to make and use biotinylated BC200 probes of the type now claimed for use in any of the methods claimed by U.S. Patent 7,510,832. As evidenced by Low et al., biotinylated probes have enhanced cellular uptake due to the presence of biotin

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedge et al. (US Patent 5,670,318), as evidenced by Low et al. (U.S. Patent 5,108,921);

and, in the alternative, over Tiedge et al. (US Patent 5,670,318) in view of Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), and Wang (U.S. Patent 6,004,755), as evidenced by Cook (U.S. Patent 6,239,265).

Tiedge et al. disclosed oligonucleotide probes that hybridize to a BC200 RNA target sequence identical to instant SEQ ID NO:1 for diagnostic purposes (cols. 1-5). In certain embodiments the probes are identical to instantly claimed antisense sequences SEQ ID NO:3 and 4 (see the sequences set forth at the top of column 3). Additionally, Tiedge et al. specifically taught probes complementary to instant SEQ ID NO:2 (see column 2, bottom). Tiedge et al. further taught kits comprising these probes, including the specific probes comprising instant SEQ ID NO: 3 and 4 for detecting BC200 RNA (col. 3 and 5).

While Tiedge et al. do not specifically teach using these probes for inhibition of BC200 RNA expression, the probe sequences are identical to the "antisense" sequences now claimed. Therefore, all properties inherent to these sequences, whether recognized or not, were disclosed and in the public domain more than one year before the filing date of the instant application. Because the disclosed sequences are identical to those now claimed in claims 3 and 4, the disclosed sequences necessarily possess antisense properties and *de facto* are antisense to the target recited in instant claims 1 and 2. For example, instant SEQ ID NO:4 is identical to SEQ ID NO:7 in Tiedge et al., which specifically hybridizes with instant SEQ ID NO:1 and 2, also identical to SEQ ID NOs. 1 and 2, respectively in Tiedge et al.

[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977).

There is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure *at the time of invention*, but only that the subject matter is in fact inherent in the prior art reference. *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377, 67 USPQ2d 1664, 1668 (Fed. Cir. 2003).

Applicant is not claiming a method of use, but the product itself. The term "antisense", used in the instant claims, is merely an intended use that does not clearly impose any structural limitations distinguishable from those sequences set forth by Tiedge et al. Thus, apart from the "moiteites that enhance cellular uptake," the probes disclosed by Tiedge et al. (US Patent 5,670,318) are structurally indistinguishable from the sequences now claimed.

Tiedge et al. (US Patent 5,670,318) had further taught the oligonucleotide probes of their invention could be synthesized using conventional chemical synthetic methods known in the art (col. 4, lines 5-10). At the time of invention it was normal laboratory practice to elute, resuspend, and store chemically synthesized oligonucleotide probes in diluents such as distilled water or Tris buffer, which would, absent evidence to the contrary, would be "acceptable" carriers for antisense.

Accordingly, the mere formulation of the claimed antisense molecules in an acceptable carrier does not patentably distinguish the claimed compositions over those disclosed by Tiedge et al., since the probe compositions disclosed by Tiedge et al. are structurally indistinguishable from those now claimed.

Tiedge et al. (US Patent 5,670,318) do not expressly teach linking any of the BC200 RNA probes disclosed therein to "moieties that enhance cellular uptake" *per se.*

However, Tiedge et al. do teach that "To facilitate detection, the probe may have a label, such as a radiolabel, chemiluminescent label, fluorescent label or chromogenic label, or an immobilization moiety. Probes modified with biotin or digoxygenin, which can serve as either a detectable label or an immobilization moiety, are particularly useful." See column 5, lines 33-38.

As evidenced by Low et al. (U.S. Patent 5,108,921), biotinylation of a polynucleotide enhances its uptake into cells bearing biotin receptors (see Low et al. at columns 1-9, Example 11, and claims 14-27).

Accordingly, one of would have had reason to biotinylate any of the probes described by Tiedge et al. for the reasons given by Tiedge et al. (US Patent 5,670,318) (e.g., to facilitate detection). As evidenced by Low et al., biotin enhances the cellular uptake of a polynucleotide when linked to the polynucleotide. Therefore, whether recognized at the time or not, Tiedge et al. had, in fact, suggested antisense molecules linked to a moiety that enhances cellular uptake, within the scope of what is now claimed. Therefore, the biotinylated BC200 RNA probes suggested by Tiedge are structurally indistinguishable from what is now claimed, having each of the required structural and functional properties.

Additionally, and in the alternative, it would have been obvious at the time of invention to include one or more methlyphosphonate linkages in any of the probes described by Tiedge et al. (US Patent 5,670,318) for any of the reasons given by Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), and Wang (U.S. Patent 6,004,755), all of which are relied on for the reasons given above in the Double Patenting rejection. As evidenced by Cook (U.S. Patent 6,239,265) at column 1, lines 62-65, methylphosphonate oligonucleotides can penetrate cell membranes to a greater extent and, thus, facilitate cellular uptake.

Accordingly, methylphosphonate modified probes were suggested by the prior art in view Yang et al. (U.S. Patent 6,541,201), Winger et al. (U.S. Patent 5,853,990), and Wang (U.S. Patent 6,004,755). Given the prior art as a whole had suggested making and using methylphosphonate-containing probes, it would have been obvious to synthesize any of the probes disclosed by Tiedge et al. (U.S. Patent 5,670,318) with one or more methylphosphonates for the same reasons (e.g., to enhance nuclease stability).

Response to Applicants' Arguments

Applicants' arguments presented on 8/10/2009 not specifically addressed above are considered to be moot in view of the new rejections stated herein, above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Wollenberger whose telephone number is (571)272-8144. The examiner can normally be reached on M-F, 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fereydoun Sajjadi can be reached on 571-272-3311. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Louis Wollenberger/
Primary Examiner, Art Unit 1635
March 3, 2010